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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,875	02/10/2004	Miroslav Blumenberg	71369.376US3 and PFI-011D	1177
23483 7590 03/13/2007 WILMER CUTLER PICKERING HALE AND DORR LLP 60 STATE STREET BOSTON, MA 02109			EXAMINER WHISENANT, ETHAN C	
			ART UNIT	PAPER NUMBER
			1634	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/13/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/13/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/775,875

Applicant(s)

BLUMENBERG, MIROSLAV

Examiner

Ethan Whisenant, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 60-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 60-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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FINAL ACTION

1. The applicant's response (filed 22 DEC 06) to the Office Action has been entered. **Claim(s) 60-64** is/are pending. Rejections and/or objections not reiterated from the previous office action are hereby withdrawn. The following rejections and/or objections are either newly applied or reiterated. They constitute the complete set presently being applied to the instant application.

35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that may form the basis for rejections set forth in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

or

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections under 35 USC § 102

4. The rejection of **Claim(s) 60-64** under 35 U.S.C. 102(e) as being anticipated by Makrigiorgus [US 6,174,680(2001)] is maintained for the reason of record.

5. The rejection of **Claim(s) 60-64** under 35 U.S.C. 102(b) as being anticipated by Affymatrix Technical Note (2004) is maintained for the reason of record.

RESPONSE TO APPLICANT'S AMENDMENT/ ARGUMENTS

6. Applicant's arguments with respect to the claimed invention have been fully and carefully considered but are not deemed to be persuasive. The applicant has traversed the 102(e) and 102(b) rejections essentially arguing that the Hu6800 array does not fall within the scope encompassed by Claims 60-64. The examiner respectfully disagrees and points to the applicant's specification p.159, beginning at about line 21 wherein the applicant teaches using the Hu6800 array to practice his method. Furthermore, structurally the composition of matter recited in Claims 60-64 is identical to that of the Hu6800 gene expression array manufactured by Affymetrix.

Claim 60 is drawn to a composition of matter comprising a plurality of nucleic acid molecules capable of detecting altered expression due to exposure to ultraviolet radiation, the nucleic acid molecules being selected from the groups consisting of:

(i) at least one nucleic acid molecule encoding a transcription factor protein, at least one nucleic acid molecule encoding a signal transducing protein, and at least one nucleic acid molecule encoding a mitochondrial protein;

(ii) at least one nucleic acid molecule encoding a secreted, growth factor, at least one nucleic acid molecule encoding a cytokine, and at least one nucleic acid molecule encoding a chemokine; and

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(iii) at least one nucleic acid molecule encoding an actin-binding protein, at least one nucleic acid molecule encoding a desmosomal protein, and at least one nucleic acid molecule encoding a tubulin protein; and a substrate suitable for binding the nucleic acid molecules. In support of his position the examiner has referred to the file **Hu6800 annotations, CSV format (3.1 MB, 11/15/06)** which can be found at **<http://www.affymetrix.com/support/technical/annotationfilesmain.affx>**

The Hu6800 array comprises a probe set (i.e. AF005887 – No. 97 on the list) for activating transcription factor 6 (i.e. a transcription factor protein), a probe set (i.e. XO4526 – No. 5548 on the list) for guanine nucleotide binding protein (G protein), beta polypeptide 1 (i.e. a signal transducing protein), a probe set (i.e. XO5409 – No. 5570 on the list) for aldehyde dehydrogenase 2 family - mitochondrial (i.e. a mitochondrial protein), a probe set (i.e. J00148 – No. 1441 on the list) for Human Growth hormone 1 (i.e. a secreted growth factor), a probe set (i.e. JOO207_rna2_at – No. 1442 on the list) for Interferon alpha 2 (i.e. a cytokine), a probe set (i.e. AB002409_at – No. 34 on the list) for chemokine(C-C motif) ligand 21 (i.e. a chemokine), a probe set (i.e. M62994_at – No. 2992 on the list) for filamin B, beta (actin binding protein 278) (i.e. an actin – binding protein), a probe set (i.e. D31784_at – No. 441 on the list) for cadherin-6 (i.e. a desmosomal protein), and a probe set (i.e. J00314_at – No. 1454 on the list) for human tubulin-beta (i.e. a tubulin protein). Finally, these probes are arrayed on a glass slide (i.e. a substrate suitable for binding the nucleic acid molecules).

What structural limitation(s) is/are present in Claim 60 which is/are not expressly or inherently described by Makrigiorgus [US 6,174,680(2001)] or Affymetrix Technical Note (2004) both of which teach the Hu6800 array? Admittedly, the references cited do not teach using the Hu6800 array as recited in Claims 60-64, however, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. *In re Casey*, 152 USPQ 235 (CCPA 1967); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Clearly, the

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Hu6800 array is capable of performing the intended use as it is expression array disclosed by the applicant as useful in carrying out his method.

CONCLUSION

7. **Claim(s) 60-64** is/are rejected and/or objected to for the reason(s) set forth above.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ethan Whisenant, Ph.D. whose telephone number is (571) 272-0754. The examiner can normally be reached Monday-Friday from 8:30AM - 5:30PM EST or any time via voice mail. If repeated attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached at (571) 272-0735.

The Central Fax number for the USPTO is (571) 273-8300. Please note that the faxing of papers must conform with the Notice to Comply published in the Official Gazette, 1096 OG 30 (November 15, 1989).



ETHAN WHISENANT
PRIMARY EXAMINER

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